DOCUMENT RESUME

ED 190 745 CE 025 389

AUTHOR Iverson, Maynard J.: Davis, Paul D.
TITLE The Effects of Selected Inservice Education Methods on the Attitudes of Vocational Education Instructors Regarding Teaching Students with Physical Disabilities.
INSTITUTION Auburn Univ., Ala. Dept. of Vocational and Adult Education.
PUB DATE Mar 80
NOTE 56p.: Small type in tables will not reproduce well.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Adult Vocational Education: Agribusiness: Agricultural Education: Comparative Analysis: *Efficiency: Individualized Instruction: *Inservice Teacher Education: Lecture Method: Pacing: *Physical Disabilities: Postsecondary Education: Secondary Education: *Teacher Attitudes: *Teaching Methods: Videotape Recordings: Vocational Education: *Vocational Education Teachers

ABSTRACT

A study determined effective inservice education methods to reduce the apprehension of experienced vocational education teachers regarding instruction of handicapped students. In order to guide the study, three null hypotheses were generated and tested. A three-group, randomized, pre- and post-test experimental design was utilized. Thirty teachers of vocational agribusiness in Alabama, who were attending a workshop for cooperating teachers, were randomly assigned treatments which consisted of a videotaped presentation, a lecture (control), and a self-paced individualized packet. The Attitudes Toward Disabled Persons (ATDP) instrument was utilized to collect data. Descriptive and inferential statistics utilized to analyze the data included percentages, means, frequencies, correlated T-tests, Chi Square, and analysis of variance. All three null hypotheses were rejected at the .05 level of confidence: Voc-Ag teachers were moderately positive in attitudes toward the disabled: there were changes in attitudes after inservice treatments as measured by the ATDP: and the videotape presentation was most effective. Lecture was next in effectiveness, and the self-study was least effective in changing attitudes of teachers toward the disabled. Seven recommendations were made based on the findings of the study. (Author/YLB)

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"The Effects of Selected Inservice Education Methods on the Attitudes of Vocational Education Instructors Regarding Teaching Students With Physical Disabilities"

Research Report of a Staff Study

by

Maynard J. Iverson, Ph.D.

and

Paul D. Davis, Ed.D.

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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ABSTRACT

The primary purpose of the study was to determine effective inservice education methods to reduce the apprehension of experienced vocational education teachers regarding instruction of handicapped students. Beginning and post-workshop attitudes toward the disabled were also sought. In order to guide the study, three null hypotheses were generated and tested.

A three-group, randomized, pre- and post-test experimental design was utilized. Thirty teachers of vocational agri-business in Alabama, who were attending a workshop for cooperating teachers, were randomly assigned treatments which consisted of a videotaped presentation, a lecture (control) and a self-paced individualized packet. The "Attitudes Toward Disabled Persons" (ATDP) instrument was utilized to collect data. Descriptive and inferential statistics utilized to analyze the data included: percentages, means, frequencies, correlated T-tests, Chi Square and analysis of variance.

The participants ranged in age from 24 to 56 years (mean of 35.7 years). Number in the immediate family was one to seven (mean of 3.5). The average income was $17,217.00. Just four participants had handicapped persons in their family, and only one-third had taken coursework in teaching the handicapped; but, 55.2 percent had experience in teaching the handicapped. Education was nearly equally divided among masters, bachelors, and specialist degrees. No statistically significant differences were found on demographic variables among the three groups.

All three null hypothesis were rejected at the .05 level of confidence: Vo-Ag teachers were moderately positive in attitudes toward the disabled; there were changes in attitudes after inservice treatments as measured by the ATDP; and the videotape presentation was most effective. Lecture was next in effectiveness and the self-study was least effective in changing attitudes of teachers toward the disabled.

Seven recommendations were made, based on the findings of this study.

ACKNOWLEDGEMENTS

We gratefully acknowledge the assistance of a large number of people, without whose efforts this study could not have been possible: the 30 participants, for cheerfully taking part in the experiment; Dr. Walter Jerecke, Professor of Rehabilitation Education, Auburn University, for his outstanding assistance in developing the inservice materials and delivering the lecture during the experiment; Ms. Susan Williams, Home Economist for Alabama Power Company, Atmore, for her work while a graduate student in adaptation of the ATDP scale and field testing the instrument with selected Home Economics classes at Auburn University; Dr. Bill Shell, Director of Media, School of Pharmacy, for managing the production of the videotape presentation; Mrs. Gwen Chandler, Mr. Manny Russo, and the late Mr. Robert Rodin, for graciously sharing their experiences and inner feelings (as handicapped persons) on videotape; Dr. Richard Baker, head of VED, for providing generous support and encouragement, and allotting time for the researchers to complete the study and resultant reports; Dr. Chester Carroll, Vice President for Research, Auburn University, and his staff, for financial support of this study through the Research Grant-in-Aid Program; the secretaries in the Department of Vocational and Adult Education --- Ms. Flossie Blake, Mrs. Lorene Burleson, and Ms. Sherry Adkinson -- and Mrs. Bettye Campbell and her staff in Secretarial Services, for the fine job in word processing; Liz Davis for key punching the data; Mrs. Mitzi Iverson for preparing the transcription of the narrative; Mr. Steven Ragsdale, manager, Auburn Motor Lodge, for arranging excellent facilities for the workshop; and finally, the families of the researchers, whose devotion and patience allowed the researchers to spend the extra time at the office needed to complete the study.

The research reported herein is our first experimental study in the area of teaching the handicapped. We urge others to study the results and recommendations with the intent of continuing research in this most difficult, yet important, aspect of education.

M. J. Iverson

Paul D. Davis

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CHAPTER I

INTRODUCTION

Objectives.

The primary objective of this study was to determine effective inservice education methods which would reduce the apprehension of experienced vocational education teachers regarding instruction for physically handicapped students.

Specific questions to be answered were:

1. What are the attitudes of experienced vocational agribusiness teachers in Alabama regarding working with physically handicapped students?
2. What effects do selected inservice education methods have upon the attitudes of experienced teachers of agribusiness in Alabama toward the handicapped student?
3. How do selected methods compare in effectiveness for changing attitudes of vocational agribusiness teachers toward working with disabled students?
4. What recommendations can be made regarding future inservice education programs for vocational teachers involved with physically handicapped students?

Hypotheses.

Null hypotheses generated to guide the analysis of the study were as follows:

1. Vocational agribusiness teachers in Alabama will exhibit a neutral attitude toward disabled/handicapped persons as measured by a 3.0 mean score on the "Attitudes Toward Disabled Person" (ATDP) instrument.

2. There will be no change in the level of Vocational Agriculture teachers' attitudes toward disabled persons after a specific inservice education program, as measured by pre- and post-tests using the ATDP instrument.

3. There are no significant differences between the three inservice education methods (videotaped presentation, lecture and self-instructional guide) in causing modification of Vo-Ag teachers' attitudes toward the disabled, as measured by the ATDP instrument.

Review of Literature

A search of the literature in the area of vocational teacher preparation supports the need for improved techniques and delivery systems for inservice teacher development.

Numerous articles have attested to the need for improvement of inservice vocational teacher development, and many of these articles have singled out teachers of handicapped youth. None, however, have been more explicit in describing this need than the General Accounting Office Report to the Congress (1976). A statement from this report which emphasized the need for improvement in training for teachers of handicapped children is the observation that:

> The handicapped are usually excluded from the regular public school vocational programs and are limited to segregated classes offering few career choices. One major barrier preventing them from participating in regular vocational programs is that vocational educators generally lack training in dealing with the handicapped. For this reason and because of their apprehension, vocational educators generally exclude the handicapped from the regular vocational programs. This lack of needed training could result in millions of handicapped individuals being unemployed and heavily dependent on society. (p. 28)

In the paragraph that followed, the Comptroller General suggested that "to improve career opportunities for the handicapped, vocational educators should receive instruction in how to effectively deal with the handicapped." (p. 28)

The report presented a bleak picture of the consequences to the country of not developing sound vocational programs for handicapped students, and cited Office of Education estimates that:

> ...without vocational education, many of the millions of handicapped youth leaving school will be unemployed, on welfare, totally dependent on society, or otherwise idle much of the time. With vocational education, however, educators estimate that 75 percent of the physically disabled and 90 percent of the mentally retarded could work, either in the competitive job market or in a sheltered workshop. (p. 29)

A final reference to the 1976 General Accounting Office Report served to underscore the need to provide additional training for vocational teachers of the handicapped. It also indicated the extremely high priority the Department of Health, Education, and Welfare placed on meeting the need. The reference began with recommendations from the General Accounting office that:

> The Secretary direct OE to:
>
> <u>Develop and implement a plan to stimulate a major efforts to provide vocational eductors with the skills and abilities needed to effectively deal with the handicapped in the regular classroom.</u>
>
> <u>Department Comment</u>
>
> We concur with the findings of the GAO report and firmly acknowledge that the current exclusion of the handicapped from regular vocational education programs is a serious problem which needs attention. The problem is twofold:

> vocational educators are not being afforded the opportunity to acquire the skills and abilities necessary to work effectively with the handicapped in vocational education and, secondly, special educators are not adequately prepared to provide the appropriate career and pre-vocational educational experiences to handicapped students. Although there are efforts underway through EHA training funds to train specialists in this area of need, we are proposing that the U.S. Office of Education develop a formal cooperative agreement between the Bureau of Education for the Handicapped and the Bureau of Occupational and Adult Education to facilitate this activity. The two bureaus will jointly establish program guidelines aimed at developing joint vocational and special education personnel preparation objectives, joint modes of implementation and evaluation, as well as jointly stressing the high priority of this approach to the training institutions. (p. 57)

The Department's comment left little doubt regarding the Commissioner's concurrence with the stated need for improved programs of preparation for vocational special needs teachers. The Department comment also conveyed the Commissioner's intent to increase efforts to alleviate the problem.

The federal committment to serve the handicapped through vocational education began with the Vocational Education Act of 1963, PL 88-210, which provided that vocational education funds could be used to serve the handicapped. The Vocational Education Amendments of 1968 earmarked 10% of federal vocational funds to be spent on handicapped students. The 1972 Amendments and the 1976 Secondary and Higher Education Act further mandated specific expenditures for the handicapped. Public Law 93-112, the Rehabilitation Act of 1973, provided funds specifically for preparation of teachers to serve handicapped persons, while PL 94-142, Assistance to States for Handicapped Children, and PL 94-482, the Vocational Education Amendments of 1976, mandated placing handicapped children in the least restrictive educational environment.

The State of Alabama is also committed to serving the handicapped; during 1977, 4429 physically handicapped students were served by some 200 vocational education programs. For 1978-79, 6778 persons were projected to be served in 300 programs, and increases are projected for the future. This represents about one-eighth of all secondary education programs--a modest share of the total numbers of handicapped which exist in Alabama. All service areas, including Vocational Agribusiness Education, share in the State's commitment to the handicapped.

Vocational Agriculture/Agribusiness Education in Alabama is an extensive program consisting of 38,000 seventh through twelfth graders, 870 post-secondary students, and 22,000 adults, guided by 530 teachers at over 350 comprehensive junior/senior high schools, area vocational centers, and technical/junior/community colleges. Projections to 1981 show 45,000 secondary students, 1480 post-secondary, and 24,000 adults taught by over 590 instructors.

As in other service areas, only a small portion of agribusiness teachers have received instruction in working with the physically handicapped. This remains a major area of need for vocational teachers in Alabama. Since State-level inservice education is prescribed in the State Plan ($30,000 was budgeted in 1978 for "workshops to train teachers to work with the physically handicapped students"), it is vital that optimum utilization should be made of these limited resources. No studies have been made as to the most effective means to provide inservice education regarding teaching the handicapped. This study ought to provide managers of vocational inservice education with useful data regarding the effectiveness of methods for changing the attitudes of vocational education teachers

toward students with physical handicaps. Although attitudes are not the sole determinant of behavior, preceptions and beliefs are reflected in attitudes, and attitudes are an important part of any educational environment.

Procedures

To accomplish the objectives of the study, a pretest-posttest experimental design was utilized. Three groups of randomly assigned participants were formed during a cooperating teacher workshop conducted in Auburn, July 16-20, 1979.

Group "A" received treatment one, instruction by mediated materials (videotapes) used in a group setting; Group "B" (control) received the traditional method employed in inservice programs, the lecture method; Group "C" received instruction via self-paced individualized learning packets (reading materials). After their respective treatments, each group was administered the post-test instrument. The design is shown in Figure 1.

Figure 1

Graphic Portrayal of The Experimental Design[a]

	Random Assignment	Pre-Test (Mailed)	Treatments	Posttest (Given at the workshop)
Group A	R	O_1	X_1 (Videotape)	O_2
Group B (control)	R	O_3	X_2 (Lecture)	O_4
Group C	R	O_5	X_3 (Self instructional materials)	O_6

[a]Patterned after Campbell and Stanley's Design no. 4, Pretest-Posttest Control Group Design, in Experimental and Quasi-experimental Designs Chicago: Rand McNally 1966, p. 13.

A copy of the tape/lecture/study guide narrative may be seen in Appendix A. The study guide used by group C is shown in Appendix B.

A validated attitude assessment instrument, "Attitudes Toward Disabled Persons" (Yuker, Black and Campbell, 1960) was obtained--along with permission to utilize it in the study--adapted, and field tested with vocational home economics students at Auburn University, prior to its use as a pre-/post-test instrument in the study. According to Shaw and Wright in Scales for the Measure of Attitudes (1967):

> The ATDP scale (Yuker, Block, and Campbell, 1960). . . attempts to measure attitudes toward disabled persons in general. The original form of the scale consisted of 20 items, but later work resulted in two equivalent 30-item forms. Each statement suggests that disabled persons are either the same as or different from physically normal people. Approximately half of the items refer to similarities or differences in personality characteristics, whereas the other half deal with the question of special treatment for the disabled. Items were selected on the basis of item analysis.
>
> Subjects. The ATDP scale had been administered by its authors to a large number of subjects. Estimates of reliability were obtained from samples of physically normal college students at Hofstra College. For purposes of validation, a sample of disabled persons was drawn from employees of Abilities, Inc. (N=243).
>
> Response Mode. Subjects are given a six-point response scale: I agree very much, I agree pretty much, I agree a little, I disagree a little, I disagree pretty much, and I disagree very much. These alternatives are weighted +3, +2, +1, -1, -2, and -3, respectively The subject responds to each item by either entering the appropriate weight in a space provided to the left of each item or by circling the appropriate weight on an answer sheet. (When an answer sheet is used, the response values are entered on the answer sheet after the number corresponding to each item.)
>
> Scoring. Forms A and B of the ATDP scale are scored as follows: (1) Change the signs of the weights of positive items (Form A items 5, 9, 12, 14, 17, 19, 21, 22, 23, 24, 25, and 29; Form B items 1, 3, 4, 6, 7, 10, 12, 13, 22, 26, and 28); (2) add all responses algebraically; (3)

change the sign of the algebraic resultant; and (4) add 90. With disabled subjects, high scores are interpreted as self-acceptance; for nondisabled subjects, high scores are interpreted to represent acceptance of disabled persons, i.e., a favorable attitude toward disabled persons.

Reliability. Several estimates of reliability are reported. Split-half reliabilities range from .78 (N = 72) to .84 (N = 110). Coefficients of equivalence (Form A versus Form B) ranged from .41 (N = 58) to .83 (N = 57).

Validity. The ATDP scale has reasonably good content validity, and additional evidence is provided by correlation of ATDP scores with other scales. Significant correlations were found between ATDP and semantic differential scores (-.266), scores on a job satisfaction scale (+.463), and the Edwards Personal Preference Schedule (+.252). Nonsignificant correlations were found between ATDP and the following: Attitude toward Intellectualism (Block and Yuker, unpublished), the F scale, the Machiavellianism Scale (Christie, 1956), the IPAT Self Analysis Forms (Cattell, 1957), and the Attitudes toward Old People Scale (Block and Yuker, unpublished).

Comments. The authors of this scale have done a considerable amount of work on it, and the supporting data are better than for most scales. There is still some question concerning its validity, but it seems adequate for research purposes. (p. 480-3)

A copy of the ATDP, form A, may be reviewed in Appendix C.

Five items related to vocational education were added to the ATDP instrument by the researchers; they were:

Item 2 Disabled persons should be placed in the same school classroom as non-disabled persons.

Item 6 Disabled persons should only be placed in classrooms with other disabled persons.

Item 12 Disabled persons in a regular classroom would hinder the progress of non-disabled persons.

Item 20 Disabled persons in a vocational laboratory (shop, sewing lab, greenhouse, foods lab, etc.) can achieve the same skill level as a non-disabled person.

Item 31 Special provisions, such as individual attention, specialized equipment, and removable barriers should be provided for disabled students in the public schools.

Also, responses were placed on a five point scale of 1 = strongly disagree; 2 = disagree; 3 = undecided; 4 = agree and 5 = strongly agree. The revised instrument utilized in this study may be reviewed in Appendix D.

Data were processed by computer using the Statistical Package for the Social Sciences (SPSS) program. Descriptive statistics, including frequencies, means, and percentages, were calculated. In addition, inferential statistics were run, including: the correlated t-test for paired data, using one- and two-tailed tests to establish level of probability, Chi Square and analysis of variance. The .05 level of significance was set by the researchers as the point of rejection or acceptance of hypotheses.

In order to secure an overall rating of "favorableness" toward the disabled, the negatively stated items: 1, 3-6, 8-12, 14, 16, 18, 19, 21, 22, 24, 30, 32, 33, and 35 were reverse scored by computer. Data were tabled, analyzed and reported by research report, and conference presentations and journal articles were planned. A report of expenditures was also presented to the Auburn University Research Grant-in-Aid Office in accordance with regulations governing funded studies under the Research Grant-in-Aid program.

Limitations

Several limiting factors should be kept in mind as the reader peruses this report:

1. Although subjects were randomly assigned to treatment groups, the teachers were essentially self-selected for participation in the workshop. Thus the subjects may not be totally representative of the vocational agriculture teachers in the state.

By voluntarily attending the workshop, the participants may have exhibited an atypical, positive attitude toward the handicapped.

2. Administration of the instruments was not concisely controlled as to time and conditions. The pre-test was mailed out approximately two weeks prior to the workshop; time of response varied; however, all but four were returned several days prior to the meeting and all were collected prior to the start of the workshop. The post-test was given immediately after the three inservice presentations (by videotape, lecture and self-instructional guide). The hectic pace of the day may not have given sufficient time for participants to internalize the concepts embodied in the in-service program. However, it was observed that the participants were attentive to the workshop and serious in completing the pre-test instrument.

3. Some variation in completion time existed between the three groups (videotape/lecture/self-instructional methods). Although the groups were taken to different rooms so as to insure a minimum of interaction, the early completion and release of the groups receiving the videotaped presentation (45 minute completion time) and self-instruction (55 minute completion time) may have caused less concentration on the part of participants in the "slower" group(s) (the lecture method group met for approximately 70 minutes).

4. The subjects of the inservice methods (videotape, lecture and self-instructional guide) were college-level individuals; this may have created a "credibility gap" in the eyes of participants, whose work was primarily with adolescents.
5. The ATDP instrument dealt with physical disabilities in general; an instrument focusing on the specific handicaps of the subjects in the inservice film, lecture and study guide, may have evoked a different response pattern.

Chapter II

FINDINGS

Characteristics of Participants

The 30 vocational agriculture teachers provided certain demographic data on a "Personal Data Sheet" attached to the pretest questionnaire (see Appendix D). Age of participants ranged from 24 to 56 years; the mean age was 35.7 years. Numbers of immediate family members ranged from one to seven; the mean was 3.5. The average income for the group was $17,217 with a low of $10,000 and a high income of $30,333. Four of the thirty (13.3%) reported having handicapped person(s) in the family; three of these indicated there was just one such person in the family. One-third of the participants (ten out of 30) had taken coursework in teaching handicapped students. Of the 29 answering the question, 16 or 55.2% indicated having experience in working with physically handicapped/disabled students. There were 9 teachers with bachelors degrees (30%), 13 with masters (43.3%) and 8 with specialist (AA) degrees (26.7%).

Table 1 shows participant characteristics by groups. It can be seen that, although randomly assigned, some dissimilarity existed within groups. Groups "A" and "B" were composed of participants who were older, had larger families, earned higher salaries, had greater experience/education in the area of the handicapped, and held a higher proportion of masters and specialist degrees. Group "C" was lower in all categories except experience in teaching the handicapped, where, at 50%, the participants approximated the levels of group members in A and B. However, analysis of variance indicated no significant difference among groups in age, income and family size. Likewise, Chi Square analysis showed no

Table 1

Participant Characteristics by Inservice Education Treatment Group and All Participants[a]

Characteristic	All Participants N=30	Group A (Videotape) N=10	Group B (Lecture) N=10	Group C (self-instruction -Reading) N=10
Age (mean)	35.7	38.8	36.7	31.6
No. in Family (mean)	3.5	4.1	3.7	2.8
Income (mean)	$17,217	$18,170	$19,425	$16,000
Handicapped Family Member (%)	13.3%	20%	20%	0.0%
Coursework in Teaching Handicapped (%)	33.3%	40%	40%	20%
Experience in Teaching Handicapped (%)	55.2%	50%	60%	50%
Highest Degree Held (%)				
Bachelors (%)	30.0%	20%	20%	50%
Masters (%)	43.3%	50%	40%	40%
Specialist (%)	26.7%	30%	40%	10%

[a]No significant differences were found among groups when subjected to statistical analysis (analysis of variance or Chi Square, as appropriate).

significant differences among the three groups in handicapped family members, experience or coursework in teaching the handicapped, and degree held.

Attitudes of Participants Toward the Handicapped

Attitudes of participants were measured on two major factors, 1) attitudes toward personality characteristics of disabled persons and 2) attitudes toward special treatment for the disabled.

Table 2 portrays the pre-test means and frequencies of responses for the 19 items on the ATDP which were related to attitudes toward personality characteristics of disabled people. When the six positively stated items (13, 15, 17, 23, 28, and 29) are extracted from the list, it can be seen that their means ranged from 3.20 to 3.67 on a scale of 1 = strongly disagree, to 5 = strongly agree (the grand mean of the six items was 3.54), for a total sum of means of 21.24 out of a possible 30. When responses to the other 13 items are reprogrammed to the positive, the sum of means of the 19 item area equals 67.40 out of a possible 95, for a grand mean of 3.55.

When teacher response to the pretest items relating to personality characteristics of disabled people were compared to a neutral (3.0 mean) score through a two-tailed t-test analysis, 14 of the 19 items were found to be significantly different at the .05 alpha level. All of these 14 significant items were in the direction of a positive attitude toward the handicapped. Of the remaining five, which were not significantly different from neutral, only two items indicate a negative attitude. Finally, the grand mean of all 19 items was found to be significant at the .001 level of probability.

Table 2

Attitude of Alabama Vocational Agribusiness Teachers[a] Toward Personality Characteristics of Disabled People

Items[b] on the ATDP Instrument	Pre-Test Scores: Frequencies (1 Strongly Disagree)	(2 Disagree)	(3 Undecided)	(4 Agree)	(5 Strongly Agree)	$\bar{X}$	Positively Recoded Pretest $\bar{X}$	Two-Tailed t-test Probability[c]
- 1. Disabled people are often unfriendly.	6	19	4	1		2.00	4.00	.001
- 4. Disabled people are more emotional than other people.	20	7	2	1		2.47	3.53	.001
- 5. Most disabled persons are more self-conscious than other people.	1	8	4	17		3.23	2.76	.199 N.S.
-11. Severely disabled persons are usually untidy.	2	20	6	2		2.27	3.73	.001
13. Disabled people show as much enthusiasm as other people.		4	2	24		3.67	3.67	.001
-14. Disabled persons are usually more sensitive than other people.	1	11	7	9		3.00	3.00	1.000 N.S.
15. Most disabled people feel that they are as good as other people.		2	7	20	1	3.67	3.67	.001
17. Disabled people are usually sociable.		3	5	20	2	3.70	3.70	.001
-18. Disabled people usually are not as conscientious as physically normal people.	2	24	1	3		2.17	3.83	.001
-19. Severely disabled persons probably worry more about their health than those who have minor disabilities.	1	9	6	14		3.10	2.90	.573 N.S.
-21. Most disabled persons are dissatisfied with themselves.	1	17	8	4		2.50	3.50	.001
-22. There are more misfits among disabled persons than among non-disabled persons.	1	18	9	2		2.40	3.60	.001
23. Most disabled persons do not get discouraged easily.		7	10	13		3.20	3.20	.184 N.S.
-24. Most disabled persons resent physically normal people.	2	22	6			2.13	3.87	.001
28. Most severely disabled people are just as ambitious as physically normal people.		3	9	18		3.50	3.50	.001
29. Disabled people are just as self-confident as other people.		5	5	20		3.50	3.50	.001
-30. Most disabled persons want more affection and praise than other people.		13	7	10		2.90	3.10	.541 N.S.
-33. Physically disabled persons are often less intelligent than non-disabled persons.	9	19		2		1.83	4.17	.001
-35. The way disabled people act is irritating.	6	23	1			1.83	4.17	.001

$\sum \bar{X} = 67.40$
Grand $\bar{X} = 3.55$ ($p = .001$)

[a] N = 30

[b] Items marked with a minus (-) are negatively stated.

[c] Comparisons with a neutral (3.0) mean score.

In Table 3, ATDP items relating to attitudes toward special treatment for the disabled are listed. On the eight positively stated items, mean responses ranged from 2.97 to 4.03 on the five point scale where 1 = strongly disagree, and 5 = strongly agree. Sum of the means equaled 26.77 out of a possible 40 — a grand mean on the eight items of 3.35. When responses to the other eight items were reprogrammed toward the positive, the sum of the means of the 16 items equaled 53.33 out of a possible 80, for a grand mean of 3.34.

When the 16 items were compared to a neutral (3.0) mean score through a two-tailed t-test analysis, nine were significantly different. Of the remaining non-significant items, all but one indicated a positive attitude toward the handicapped. Consequently, the grand mean of the 16 items, 3.34, was also found to be significant at the .001 level of probability.

When all items on the instrument (from Tables 2 and 3) were taken together, all positive items plus the positively recoded negative items, the sum of means equaled 120.73 out of 175 or a grand mean of 3.45 on a scale of 1 = strongly disagree, . . .and 5 = strongly agree.

Effects of Inservice Education Upon Attitudes of Vo-Ag Teachers Toward the Handicapped

As can be seen in Table 4, some changes occurred among all participants in responses to the ATDP instrument between the pre-test and post-test. Using a correlated T-test, one-tailed probability, eight items were significantly different at the .05 alpha level. The greatest changes took place between pre- and post-tests on four items:

33. Most disabled people are different from non-disabled people. (+.51)

Table 3

Attitude of Alabama Vocational Agribusiness Teachers[a] Toward Special Treatment for the Disabled

Items[b] on the ATDP Instrument	Pre-Test Scores: Frequencies — Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5	$\bar{X}$	Positively Recoded Pretest $\bar{X}$	Two-Tailed t-test Probability[c]
2. Disabled persons should be placed in the same school classroom as non-disabled persons.	2	5	8	15		3.20	3.20	.264 N.S.
- 3. Disabled people should not have to compete with physically normal people for jobs.	2	11	11	6		2.70	3.30	.071 N.S.
- 6. Disabled persons should only be placed in classrooms with other disabled persons.	2	21	7			2.17	3.83	.001
7. We should expect as much from disabled as from non-disabled persons.	11	9	10			2.97	2.97	.831 N.S.
- 8. Disabled workers cannot be as successful as other workers.	6	23		1		1.87	4.13	.001
- 9. Disabled people usually do not make much of a contribution to society.	10	20				1.67	4.33	.001
-10. Most non-disabled people would not want to marry any one who is physically disabled.		10	12	8		2.93	3.07	.645 N.S.
-12. Disabled persons in a regular school classroom would hinder the progress of non-disabled persons.	1	19	6	4		2.43	3.57	.001
-16. The driving test given to a disabled person should be more severe than the one given to the non-disabled person.	3	18	5	3	1	2.37	3.63	.001
20. Disabled persons in a vocational laboratory (shop, sewing lab, greenhouse, foods lab, etc.) can achieve the same skill level as a non-disabled person.		8	8	14		3.20	3.20	.206 N.S.
25. Disabled children should compete with physically normal children.		9	10	11		3.07	3.07	.662 N.S.
26. Most disabled persons can take care of themselves.		5	7	18		3.43	3.43	.005
27. It would be best if disabled persons would live and work with non-disabled persons.	1	9	6	12	2	3.17	3.17	.393 N.S.
31. Special provisions, such as individual attention, specialized equipment, and removable barriers, should be provided for disabled persons in the public schools.		2		23	5	4.03	4.03	.001
-33. Most disabled people are different from non-disabled people.	4	14	6	4		2.40	3.60	.001
34. Disabled persons don't want any more sympathy than other people.		1	5	23	1	3.80	3.80	.001

$\Sigma \bar{X} = 53.33$

Grand $\bar{X} = 3.34$ ($p = .001$)

[a] N = 30

[b] Items marked with a minus (-) are negatively stated.

[c] Comparisons with a neutral (3.0) mean score.

Table 4

Changes in Attitudes of Alabama VoAg Teachers[a] Toward Disabled Persons After an Inservice Education Workshop, 1979

ITEMS[b] ON THE ATDP	PRETEST						POST TEST						
	Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5	$\bar{X}$	Strongly Disagree 1	Disagree 2	Undecided 3	Agree 4	Strongly Agree 5	$\bar{X}$	Change
1. Disabled people are often unfriendly.	6	19	4	1		2.00	6	22	1	1		1.90	-.10
2. Disabled persons should be placed in the same school classroom as non-disabled persons.	2	5	8	15		3.20		5	10	14	1	3.37	.17
3. Disabled people should not have to compete with physically normal persons for jobs.	2	11	11	6		2.70	2	18	4	4	2	2.53	-.17
4. Disabled people are more emotional than other people.	20	7	2	1		2.47	4	15	2	9		2.53	.06
5. Most disabled persons are more self-conscious than other people.	1	8	4	17		3.23		5	1	24		3.63	.40*
6. Disabled persons should only be placed in classrooms with other disabled persons.	2	21	7			2.17	2	21	5	1	1	2.27	.10
7. We should expect just as much from disabled as from non-disabled persons.	11	9	10			2.97	1	7	8	13	1	3.20	.23
8. Disabled workers cannot be as successful as other workers.	6	23		1		1.87	8	19	1	1	1	1.93	.06
9. Disabled people usually do not make much of a contribution to society.	10	20				1.67	7	20		2	1	2.00	.33*
10. Most non-disabled people would not want to marry any one who is physically disabled.		10	12	8		2.93		7	12	11		3.13	.20
11. Severely disabled persons are usually untidy.	2	20	6	2		2.27	5	21	1	3		2.07	-.20
12. Disabled persons in a regular school classroom would hinder the progress of non-disabled persons.	1	19	6	4		2.43	1	17	8	4		2.50	.07
13. Disabled people show as much enthusiasm as other people.		4	2	24		3.67	2	4		24		3.53	-.14
14. Disabled persons are usually more sensitive than other people.	1	11	7	9		3.00		8	2	19	1	3.43	.43*
15. Most disabled people feel that they are as good as other people.		2	7	20	1	3.67	1	3	1	24	1	3.70	.03
16. The driving test given to a disabled person should be more severe than the one given to the non-disabled person.	3	18	5	3	1	2.37	4	22	3	1		2.03	-.34*
17. Disabled people are usually sociable.		3	5	20	2	3.70	1	2	5	22		3.60	-.10

Table 4, continued

ITEMS[b] ON THE ATDP	1	2	3	4	5	$\bar{X}$	1	2	3	4	5	$\bar{X}$	Change
18. Disabled people usually are not as conscientious as physically normal people.	2	24	1	3		2.17	3	24	2		1	2.07	-.10
19. Severely disabled persons probably worry more about their health than those who have minor disabilities.	1	9	6	14		3.10		4	5	21		3.57	.47*
20. Disabled persons in a vocational laboratory (shop, sewing lab, greenhouse, foods lab, etc.) can achieve the same skill as a non-disabled person.		8	8	14		3.20		7	8	15		3.27	.07
21. Most disabled persons are dissatisfied with themselves.	1	17	8	4		2.50		22	5	3		2.37	.13
22. There are more misfits among disabled persons than among non-disabled persons.	1	18	9	2		2.40		22	6	2		2.33	-.07
23. Most disabled persons do not get discouraged easily.		7	10	13		3.20	1	9	6	13		3.07	-.13
24. Most disabled persons resent physically normal people.	2	22	6			2.13	3	21	3	3		2.20	-.07
25. Disabled children should compete with physically normal children.		9	10	11		3.07		12	7	11		2.97	-.10
26. Most disabled persons can take care of themselves.		5	7	18		3.43		3	2	24	1	3.77	.34*
27. It would be best if disabled persons would live and work with non-disabled persons.	1	9	6	12	2	3.17		10	7	12	1	3.13	-.04
28. Most severely disabled people are just as ambitious as physically normal persons.		3	9	18		3.50		3	4	21	2	3.73	.23
29. Disabled people are just as self-confident as other people.		5	5	20		3.50		5	2	23		3.60	.10
30. Most disabled persons want more affection and praise than other people.		13	7	10		2.90		15	7	8		2.77	-.13
31. Special provisions, such as individual attention, specialized equipment, and removable barriers, should be provided for disabled persons in the public schools.		2		23	5	4.03		1		18	11	4.30	.27*
32. Physically disabled persons are often less intelligent than non-disabled persons.	9	19		2		1.83	5	23		1		1.90	.07
33. Most disabled people are different from non-disabled people.	4	14	6	4		2.40	2	12	4	12		2.87	.47*
34. Disabled persons don't want any more sympathy than other people.		1	5	23	1	3.80		5	2	22	1	3.63	-.17
35. The way disabled people act is irritating	6	23	1			1.83	5	22	2	1		1.97	.14

GRAND $\bar{X}$ 98.51 GRAND $\bar{X}$ 100.83

TOTAL CHANGE=6.23

[a] N=30

[b] Items marked with a minus are negatively stated,

*Significant items ($P=\leq .05$) using a correlated t-test, 1-tailed test of significance.

19. Severely disabled persons probably worry more about their health than those who have minor disabilities. (+.47)

14. Disabled persons are usually more sensitive than other people. (+.43)

5. Most disabled persons are more self-conscious than other people. (+.40)

The least changes occurred in these four items:

15. Most disabled people feel that they are as good as other people. (+.03)

27. It would be best if disabled people would live and work with non-disabled persons. (-.04)

4. Disabled people are more emotional than other people. (+.06)

8. Disabled workers cannot be as successful as other workers. (+.06)

The sum of all changes was 6.23, with a mean change of .178.

Table 5 portrays the pre- and post-test scores, and the correlated T-test probabilities for the three areas of attitudes found on the ATDP instrument. There was no significant difference in pre- and post-test scores ($p = .181$) in the area of attitudes toward personality characteristics of the disabled (19 ATDP items). Significant differences were found, however, between pre- and post-test scores in the areas of attitudes toward special treatment for the disabled (16 items) ($p = .019$), and overall attitudes (35 items) ($p = .032$).

Table 5

Pre- and Post-Test Scores and t-Test Probabilities for Areas of the Attitude Toward Disabled Persons Instrument as Indicated by Alabama Vo-Ag Teachers, 1979 (N=30)

Areas of the ATDP Instrument	Pre-Test Scores	Post-Test Scores	Correlated t-Test Probability (1-tailed Test)
Attitudes toward:			
Personality Characteristics of the Disabled (19 items)	53.07	53.90	.181 (NS)
Special Treatment of the Disabled (16 items)	45.40	46.93	.019*
Disabled in the School (5 items)	15.03	15.70	.019*
All ATDP Items (35)	98.47	100.83	.032*

*Significant at the .05 level using the 1-tail test of significance

Comparison of Inservice Education Methods for Effectiveness in Changing Teacher Attitudes Toward Disabled Persons

Table 6 presents findings on the relative effectiveness of the three inservice education methods in changing the attitudes of the participants toward handicapped persons. Group "A" (videotape method) realized significant change ($p = < .05$) in the area of attitudes toward personality characteristics of the disabled (19 items) and overall (all 35 items on

Table 6

Comparison of Three Selected Inservice Education Methods on Effectiveness in Changing Attitudes of Experienced Alabama Vo-Ag Teachers Toward the Physically Handicapped

Areas of the ATDP Instrument		Group A (Videotape) N = 10	Group B (Lecture) N = 10	Group C (Self-Instructional Guide) N = 10
Personality Characteristics (19 items)	Pre-	52.50	52.50	54.60
	Post-	55.00	52.90	53.80
	Prob.	.012*	.359	.281
Special Treatment of the Disabled (16 items)	Pre-	44.80	46.10	45.30
	Post-	46.30	48.70	45.80
	Prob.	.096	.059	.326
Treatment of Disabled in the School (5 items from the above "Special Treatment Area)	Pre-	15.00	15.10	15.00
	Post-	15.50	16.30	15.30
	Prob.	.213	.029*	.260
All Items	Pre-	97.30	98.20	99.90
	Post-	101.30	101.60	99.60
	Prob.	.008*	.124	.442

*Significant factor at $\leq$ .05 level

the ATDP instruments). Group "B" (lecture method) had one significant area of change -- the five items involved in attitudes toward the disabled in the school.

Group C (self-instructional method) had no significant changes in any area, nor overall. It should be noted, however, that this group had no handicapped family members, and were younger, less experienced and less educated than members of the other two groups.

Chapter III

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary of Major Findings and Conclusions

Hypothesis 1. Vocational agribusiness teachers in Alabama will exhibit a neutral attitude toward disabled (physically handicapped) persons as measured by a 3.0 mean score on the ATDP instrument.

Major Findings: Vo-Ag teachers participating in the experiment were not neutral; they agreed moderately with pre-test questions on the ATDP instrument which were positive toward the handicapped/disabled; they somewhat disagreed with negative items. The group had a mean of 3.45 overall, on a five point scale 1 = strongly disagree, to 5 = strongly agree, when negative questions were restated and the corresponding responses were recoded to the positive.

Conclusion: H_o 1 must be rejected; and the alternative, H_a, must be accepted. Alabama Vo-Ag teachers exhibit a moderately positive attitude toward physically handicapped/disabled persons.

Hypothesis 2. There will be no change in the level of Vo-Ag teachers' attitudes toward disabled persons after a specific inservice education program, as measured by pre- and post-tests using the ATDP instrument.

Major Findings: There were changes in teacher responses to the ATDP after the inservice treatments. Four items changed from .4 to .51; the sum of all changes was 6.23, or a mean change of .178 per item. Eight items were

significantly changed from pre- to post-test scores at the .05 confidence level. Furthermore, significant differences occurred in items related to special treatment (16 items), disabled in the school (5 items) and overall attitude toward disabled persons (35 items) ($p = \leq .05$).

Conclusion: H_o 2 must be rejected and the alternative hypothesis accepted. Some change in level of Vo-Ag teachers' attitudes will occur after a specific, inservice education program.

Hypothesis 3. There are no significant differences between the three inservice education methods (A. videotaped presentation, B. lecture, and C. self-instructional guide) in causing modification of the Vo-Ag teachers' attitudes toward the disabled, as measured by the ATDP instrument.

Major Findings: Group A had significant change in the area of attitudes toward personality characteristics of the disabled (19 items) and overall (all 35 items) on the ATDP instrument; group B had one area of significance--the attitudes toward disabled in the school; group C had no significant areas.

Conclusion: H_o 3 must be rejected and the alternative hypothesis accepted: There are differences in the three inservice methods for changing attitudes of Vo-Ag teachers toward disabled persons. Seeing actual disabled people and hearing them discuss their handicaps (on video tape) was most effective, a lecture with group discussion was next in effectiveness (and especially effective in changing attitudes toward disabled in the school) and a self-instructional program (reading) was least effective.

Recommendations

It is recommended, based on this study, that:

1. Vo-Ag teachers in Alabama be given inservice education on working with physically handicapped students.
2. Further study be made of Vo-Ag teachers' attitudes toward the handicapped, especially as is related to involvement in the schools.
3. Other instruments be secured and utilized to supplement/verify findings using the ATDP scale.
4. Both audio-visuals and professional staff members be utilized for inservice workshops on teaching the physically handicapped.
5. Additional assistance be given to teachers in recognizing and understanding personality characteristics of disabled persons.
6. Exemplary programs be initiated to develop improved methods for preparing teachers to work with the physically handicapped.
7. Studies be conducted in other vocational areas to compare with findings regarding Vo-Ag teachers.

SELECTED BIBLIOGRAPHY

Alabama State plan for vocational education, Montgomery, Alabama: State Department of Education, 1978.

Brolin, D. E. Vocational preparation of retarded citizens. Columbus, Ohio: Charles E. Merrill Publishing Co., 1976.

Bowe, Frank. Handicapping America, N.Y.: Harper & Row, 1978.

California State Department of Education. Vocational education for persons with special needs. Sacramento, Calif.: (ERIC Document Reproduction Service No. ED 011 929), 1966.

Centko, F. J., Baker, G. L., and Dudask, J. M. Suggested guidelines for establishing vocationally oriented programs for special education. Lansing Mich.: Northern Michigan University, (ERIC Document Reproduction Service No. ED 117 612), 1971.

Comptroller General of the United States. What is the role of Federal assistance for vocational education? (Comptroller General Report to the Congress: MWD-75-31 December 31, 1974). Washington, D.C.: U.S. General Accounting Office, 1974.

Comptroller General of the United States. Training educators for the handicapped: A need to redirect federal programs. (Comptroller General Report to the Congress: HRD-76-77, September 28, 1976). Washington, D.C.: U.S. General Accounting Office, 1976.

Dobrovolny, J. S. Staff qualifications for technical education programs. Technical Education-supplement to IAVE Journal, 1970, 42(7), te 2 - te 5.

Faulkner, T. L. Handbook on implementing vocational education special needs programs. Montgomery, AL.: State Department of Education, 1975. (ERIC Document Reproduction Service No. ED 115 848).

Fergason, E. F. (Ed.) Emerging teacher education curricular models: Leadership training series no. 33. Columbus, Ohio: Center for Vocational and Technical Education, 1971. (ERIC Reproduction Service, No. ED 047 162).

Gearheart, B. R., Weisha, M. W. The handicapped child in the regular classroom. Saint Louis, Mo.: C. V. Mosby Co., 1976.

Gray, K. E. and Petrie, W. J. (Eds.) In-service vocational education personnel development for the 1980's. Washington, D.C.: Bureau of Occupational and Adult Education (DHEW/OE), 1975. (ERIC Document Reproduction Service No. ED 112 100).

Groves, R. M. A national survey of vocational education programs for students with special needs. Columbus, Ohio: Center for Vocational and Technical Education, 1966. (ERIC Document Reproduction Service No. ED 011 041).

Johnson, G. O. Interdisciplinary workshop for special education and vocational education teachers: Final report. Columbus, Ohio: Ohio State University Center for Vocational and Technical Education, 1969. (ERIC Document Reproduction Service No. ED 028 304).

Kazanas, H. C., and Miller, W. R. Programs for educating vocational education teachers. Journal of Industrial Teacher Education, 1974, 11(2), 72-83.

Kindschy, D. L. Teachers teach other teachers. Agricultural Education Magazine, 1970, 42, 177; 179.

Kocher, E. A competency based program for preparing vocational education teachers: Final report. Lincoln, Nebraska: Kearney State College, 1975. (ERIC Document Reproduction Service No. ED 118 919).

Link Enterprises, Inc. National curriculum development project for vocational educators of disadvantaged students: Final report. Washington, D.C.: Bureau of Adult Vocational and Technical Education (DHEW/OE), 1973. (ERIC Document Reproduction Service No. ED 086 815).

McKinney, L. A. Special needs education: The message is more. American Vocational Journal, December, 1976, p. 26.

Phelps, L. A. and Halloran, W. D. Assurance for handicapped learners. American Vocational Journal, November, 1976, pp. 36-37.

Ryan, F. A. Summer Institute to prepare vocational educators in career development. Washington, D.C.: Bureau of Research (DHEW/OE), 1968. (ERIC Document Reproduction Service No. ED 023 860).

Shaw, Marvin E. and Wright, Jack M. Scales for the Measurement of Attitudes. New York: McGraw-Hill Book Co., Inc. 1967, p. 480-483.

T & I for the handicapped? You've got to be kidding. American Vocational Journal, February, 1975, pp. 78-83.

Wall, J. E. Review and synthesis of strategies for effecting change in vocational and technical education. Columbus, Ohio: Center for Vocational and Technical Education, 1972. (ERIC Reproduction Service No. ED 062 512).

Wall, J. E. Vocational education for special groups: Sixth yearbook. Washington, D.C.: American Vocational Association, 1976.

APPENDIX

APPENDIX A

Narrative Transcription

NARRATIVE--"WORKING WITH THE HANDICAPPED"

Dr. Jarecke: My name is Walter Jarecke. I am a professor in Rehabilitation Services Education at Auburn University. Our discussion today will concern itself with problems physically handicapped people have functioning in our society. The main concerns of the educational system should be to insure full development of disabled persons regardless of the problems with which they are faced, to provide full employment, and to help with the adjustments which they must make and which must be made by the general public. The purpose of this session is to provide orientation to vocational education teachers regarding working with physically handicapped persons. The people involved in this discussion are: Gwen Chandler, who has been a paraplegic for five years. Gwen is an undergraduate student at Auburn University in the Rehabilitation Services Program with emphasis in Vocational Evaluation. Robert Rodin has Cerebral Palsy. Robert is completing his work for a Doctorate at Auburn University in Rehabilitation Counseling. And Manny Russo, on the end, who has completed his Master's degree in Rehabilitation Counseling, and is a rehabilitation counselor for the blind in the northern counties in Alabama. Manny himself is legally blind. For the next few minutes we would like to share with you the special concerns each of these people have with their particular disability, how they have adjusted to it and how they have learned to function within their special limitations. If we may, let's start with Gwen, since she is the lady on the

panel and a former Miss Wheelchair Alabama. I might add that she was one of the finalists in the Miss Wheelchair American Pageant.

Gwen, would you like to think through what types of problems people have with your type of disability and what they encounter in their daily living?

Ms. Chandler: Okay, I found out pretty quick that there are a lot of health problems that can affect you once you've become a paraplegic. For one thing, you are subject to kidney disease, so you have to drink a lot of water and take pills and be very careful because you don't stand up and do much movement and your kidneys can have problems. Pressure sores are another problem because you sit so often and you wouldn't know if you've been sitting too long so it could become ulcers or pressure sores and really become a health hazard. There is also danger from blood clots because you don't move around much. Overweight has always been a problem for me the last few years and that can be bad for heart disease besides the fact that you have to lift yourself around getting in and out of cars, etc. But, for me the biggest problem has been the fact that it takes longer to do everything. I've had to get over the fact, you know, get over wanting to be in a hurry about things, I have to take my time.

Dr. Jarecke: Is there anything in particular which can be done to make it easier for you to function in your daily living?

Ms. Chandler: I guess it's been said a million times but just make everything architecturally accessible, like ramps, elevators, level surfaces to enter buildings, things like that, and especially accessible restrooms. I can humble myself enough to ask somebody to pull me up steps or get me a cup to get a drink of water. But, I draw the line at asking somebody to carry me through a door that's too narrow into the restroom. I would just stay at home before doing that! So it would make life a lot easier if things like that were accessible.

Dr. Jarecke: As you see it, what limitations are there to your vocational goals that are dictated by your special disability?

Ms. Chandler: It seems to me since my mind's o.k. and arms and hands are o.k. that I wouldn't have much problem in most any career. Of course, things like sports or a career in the army wouldn't be available to me. But as far as evaluation, nothing should limit me. People may have to reach things or carry things for me but I can repay that favor in many ways. There are a lot more things I can do than can't do!

Dr. Jarecke: Are there any special problems in classroom or practicums?

Ms. Chandler: Desk type chairs are a problem, I usually write in my lap. I prefer tables where I can pull up under them in my wheel chair and sit next to people in chairs. On field trips, I've only been to one place that was inaccessible. Labs are a problem; most tables are built high, with stools for the

students to sit on--these are very unhandy.

Dr. Jarecke: Are there any considerations teachers can make?

Ms. Chandler: Yes, I'd like them to treat me like any other student; and not be gushy or overly solicitous. Maybe the first day of class ask if there are any considerations they can do to help me move around. "If there is, let me know later". But after that, just let me be one of the students. The obvious thing is with stairs. I'd rather they move classes to the first floor than be carried up stairs. People might feel that is making the class accessible but it is dangerous for all concerned and bad for one's pride.

Dr. Jarecke: Any adjustments to everyday living you've had to make?

Ms. Chandler: I've had to adjust to being stared at and being a center of attention instead of just one in the crowd. But I've learned to smile back and that breaks the ice. Also it takes longer to dress and get in and out of cars so I've had to allow more time to make it to an appointment. I'm still working on being shorter than everyone. I've had a hard time asking for help from others.

Dr. Jarecke: Any special personal problems?

Ms. Chandler: Yes, before, I chased my children and now I can't. This caused some personal adjustment problems--they, as teenagers, are having to get used to having a disabled mother.

Dr. Jarecke: Well, having worked with you the past few years, it looks to me like you are adjusting very well.

Ms. Chandler: I'm working at it.

Dr. Jarecke: This is Robert Rodin. He has cerebral palsy. He is working toward a doctorate in rehabilitation. Robert, what problems in daily living do you have?

Mr. Rodin: I'm a little different from Gwen, I was born with my disability so it is hard to see my problems as physical problems. I really don't have any problems with what I can do. I do everything I need to. I've been doing these all my life. I have ways and means. I live alone and do all the things I need (work in house, etc.). My biggest concern is other people's attitude toward me because of my appearance to others--they think I am totally disabled. So my biggest problem is communicating with people--about what I can do because of my speech impediment--and dealing with their attitude toward me.

Dr. Jarecke: Is there anything that people can do to help?

Mr. Rodin: O.K. basically I go along with what Gwen says. Accessibility. I'm more mobile because I have use of my legs, I can get crutches and walk short distances, climb stairs (it's a hassle, though) but I can do it.

Dr. Jarecke: What is the limitation on vocational roles as dictated by your disability?

Mr. Rodin: Not too many. I intend to stay at the university level. I have done some teaching at Auburn and have been a graduate assistant for two years. Communication is a problem. But dealing with the students, communicating to a class is a perceptual problem rather than an actual problem. People think that because I have a speech impediment they will not be able to understand me but in fact they can understand me because they will listen closer, pay closer attention and thus are more liable to understand me than a person they are relaxed with and are not paying attention to.

Dr. Jarecke: Are there any special problems with classes/practicums?

Mr. Rodin: Not really, I spent 12 years in public schools--I've had problems with writing, which required oral exams or having someone write for me. I've been fortunate in that these were always available.

Dr. Jarecke: Are there any special considerations teachers can make?

Mr. Rodin: Communication is a problem so teachers must be creative and seek alternate ways to communicate with the student. This is the biggest thing. Communication is the essence of the teaching-learning situation--you are sending a message and the student receives the message and communicates feedback. If we take the stereo-type (one way to do it) out of our minds, there are always ways to communicate if we look for ways. We can deal with anyone.

Dr. Jarecke: Are there any special concerns in adjustment with your disability?

Mr. Rodin: Yes, the psychological adjustment. I can work out any problem with a piece of equipment or technique but the attitudes can't be handled so easily. I am responsible for creating an environment I can be successful in--maybe not creating but facilitating changes in attitudes.

Dr. Jarecke: Have you made any specific adjustments that have helped you out?

Mr. Rodin: Yes, being responsible; there was a time when I sat back and said "here I am, help me--make the world right for me to get along with" so I would wait for someone to come along rather than do the things that needed to be done to create my own environment. This didn't occur until I was about 30.

Dr. Jarecke: Well Robert, good luck on your dissertation and I hope you get that job you're looking at next week.

This is Manny Russo--he has completed his rehabilitation certificate three years ago and now is a rehabilitation counselor in northern Alabama. What are some of the personal problems you have with your disability?

Mr. Russo: The biggest problem for the blind is transportation--to be able to move around on one's own. Also clothing--how to know what goes with what. You have to tag items. Also cooking is a problem--you have to learn to bake and use

other means to cook up food. These are a few of the problems, with transportation the main one.

Dr. Jarecke: Is there anything in particular that can be done to make it easier for you to get along with your disability?

MR. Russo: Yes, one thing that is being done is the removal of architectural barriers. Just removing sharp corners so that when you bump into them it doesn't hurt so bad. Of course, public transportation systems are a key to people with visual problems--these do wonders.

Dr. Jarecke: What limitations are there in your vocational goals?

Mr. Russo: A person with vision problems must consider if jobs call for desk work, reading, or travel. Federal regulations call for furnishing a driver for a sight-impaired person if he is otherwise qualified. I'm fortunate in that aspect because I have someone available in my job to drive me around when needed.

Dr. Jarecke: Are there any special problems you've encountered in your education?

Mr. Russo: Vision problems--especially with the use of yellow chalk on a green chalkboard. If the teacher will talk along with writing, it will help, as well as using white chalk on a black chalkboard. Also tests--there are typewriters with primary (½") type which make it easier to read. Also having a reader available to help a person who cannot read for themselves.

I had no problems in my school program because I was in a rehabilitation center where all these things were provided.

Dr. Jarecke: Are there any things that a teacher should know about your disability?

Mr. Russo: Yes--Teachers should know about the nature of visual problems. Many visual problems are progressive in nature (get worse). This causes depression, so teachers must be aware of this and be ready to give some understanding.

Dr. Jarecke: Are there any special concerns about your adjustment to your disability?

Mr. Russo: Yes, you've got to make the best of the situation. The public attitude is changing and that's what we need. As far as my social life, I'm single so I've had to ask the girls to come and pick me up. It hurts one's pride but I've never had anyone turn me down to come pick me up. A big problem is that I am almost totally blind at night so a date would have to help me get around.

Dr. Jarecke: It looks like you have made a tremendous adjustment to your job in working with the blind and have overcome any problems you've had.

Mr. Russo: Well, I have been sighted so I feel I have something to offer the people I work with.

Dr. Jarecke: What of your future goals? Have you considered going on for a doctorate?

Mr. Russo: To continue work with handicapped people, develop programs, work with people and eventually to get my doctorate one day if I can see it will help me reach my goal.

Dr. Jarecke: During the past few minutes, we have tried to present the problems persons with several different disabilities have in their everyday lives, in their educational programs, in vocational situations and on the job. Several things can be deduced that will help teachers, employers and the general public in their contacts with handicapped people so that they can make a really significant contribution to society.

APPENDIX B

Study Guide

Guidesheet to "Working With the Disadvantaged"

1. Who are the people in the narrative? Why are they there?

2. What are the major problems in daily living of people with:

   a. loss of use of the legs (paraplegics)?

   b. cerebral palsy?

   c. loss of sight?

3. What are special problems schools present to the handicaps listed below?

   a. paraplegia

   b. cerebral palsy

   c. blindness

4. What limitations in vocational choice do people with these handicaps have?

5. What considerations should teachers make to assist students having these handicaps?

6. What should be the main concerns of public educational systems in working with physically handicapped persons?

APPENDIX C

ATDP Scale

ATTITUDE TOWARD DISABLED PEOPLE (ATDP) SCALE

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, +3; or −1, −2, −3; depending on how you feel in each case.

+3: I agree very much	−1: I disagree a little
+2: I agree pretty much	−2: I disagree pretty much
+1: I agree a little	−3: I disagree very much

Form A

1 Disabled people are often unfriendly.
2 Disabled people should not have to compete for jobs with physically normal persons.
3 Disabled people are more emotional than other people.
4 Most disabled persons are more self-conscious than other people.
*5 We should expect just as much from disabled as from non-disabled persons.
6 Disabled workers cannot be as successful as other workers.
7 Disabled people usually do not make much of a contribution to society.
8 Most non-disabled people would not want to marry anyone who is physically disabled.
*9 Disabled people show as much enthusiasm as other people.
10 Disabled persons are usually more sensitive than other people.
11 Severely disabled persons are usually untidy.
*12 Most disabled people feel that they are as good as other people.
13 The driving test given to a disabled person should be more severe than the one given to the non-disabled.
*14 Disabled people are usually sociable.
15 Disabled persons usually are not as conscientious as physically normal persons.
16 Severely disabled persons probably worry more about their health than those who have minor disabilities.
*17 Most disabled persons are not dissatisfied with themselves.
18 There are more misfits among disabled persons than among non-disabled persons.
*19 Most disabled persons do not get discouraged easily.
20 Most disabled persons resent physically normal people.
*21 Disabled children should compete with physically normal children.
*22 Most disabled persons can take care of themselves.
*23 It would be best if disabled persons would live and work with non-disabled persons.
*24 Most severely disabled people are just as ambitious as physically normal persons.
*25 Disabled people are just as self-confident as other people.
26 Most disabled persons want more affection and praise than other people.
27 Physically disabled persons are often less intelligent than non-disabled ones.
28 Most disabled people are different from non-disabled people.
*29 Disabled persons don't want any more sympathy than other people.
30 The way disabled people act is irritating.

* Agreement with items marked with an asterisk indicates a favorable attitude; agreement with other items indicates an unfavorable attitude.

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APPENDIX D

Revised Data-Gathering Instrument

FEELINGS TOWARD DISABLED PERSONS

This will be used in a staff study; all data will be combined, therefore, your response will remain confidential. Also, the measure will have nothing to do with your final grade in this course.

Directions: Please circle the number in the right hand column which represents your feelings toward disabled persons. Use the following scale:

1. Strongly Disagree
2. Disagree
3. Undecided
4. Agree
5. Strongly Agree

Definition: Disabled persons are individuals in the noninstitutionalized population who are limited in the kind or amount of work or housework they can do because of a chronic health condition or impairment lasting six months or longer.

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
1. Disabled people are often unfriendly.	1	2	3	4	5
2. Disabled persons should be placed in the same school classroom as non-disabled persons.	1	2	3	4	5
3. Disabled people should not have to compete with physically normal persons for jobs.	1	2	3	4	5
4. Disabled people are more emotional than other people.	1	2	3	4	5
5. Most disabled persons are more self-conscious than other people.	1	2	3	4	5
6. Disabled persons should only be placed in classrooms with other disabled persons.	1	2	3	4	5
7. We should expect just as much from disabled as from non-disabled persons.	1	2	3	4	5
8. Disabled workers cannot be as successful as other workers.	1	2	3	4	5
9. Disabled people usually do not make much of a contribution to society.	1	2	3	4	5
10. Most non-disabled people would not want to marry any one who is physically disabled.	1	2	3	4	5
11. Severely disabled persons are usually untidy.	1	2	3	4	5
12. Disabled persons in a regular school classroom would hinder the progress of non-disabled persons.	1	2	3	4	5
13. Disabled people show as much enthusiasm as other people.	1	2	3	4	5
14. Disabled persons are usually more sensitive than other people.	1	2	3	4	5

	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree
15. Most disabled people feel that they are as good as other people.	1	2	3	4	5
16. The driving test given to a disabled person should be more severe than the one given to the non-disabled person.	1	2	3	4	5
17. Disabled people are usually sociable.	1	2	3	4	5
18. Disabled people usually are not as conscientious as physically normal persons.	1	2	3	4	5
19. Severely disabled persons probably worry more about their health than those who have minor disabilities.	1	2	3	4	5
20. Disabled persons in a vocational laboratory (shop, sewing lab, greenhouse, foods lab, etc.) can achieve the same skill level as a non-disabled person.	1	2	3	4	5
21. Most disabled persons are dissatisfied with themselves.	1	2	3	4	5
22. There are more misfits among disabled persons than among non-disabled persons.	1	2	3	4	5
23. Most disabled persons do not get discouraged easily.	1	2	3	4	5
24. Most disabled persons resent physically normal people.	1	2	3	4	5
25. Disabled children should compete with physically normal children.	1	2	3	4	5
26. Most disabled persons can take care of themselves.	1	2	3	4	5
27. It would be best if disabled persons would live and work with non-disabled persons.	1	2	3	4	5
28. Most severely disabled people are just as ambitious as physically normal persons.	1	2	3	4	5
29. Disabled people are just as self-confident as other people.	1	2	3	4	5
30. Most disabled persons want more affection and praise than other people.	1	2	3	4	5
31. Special provisions, such as individual attention, specialized equipment, and removable barriers, should be provided for disabled persons in the public schools.	1	2	3	4	5
32. Physically disabled persons are often less intelligent than non-disabled persons.	1	2	3	4	5
33. Most disabled people are different from non-disabled people.	1	2	3	4	5
34. Disabled persons don't want any more sympathy than other people.	1	2	3	4	5
35. The way disabled people act is irritating.	1	2	3	4	5

Personal Data Sheet

A. Social Security Number_____

B. Age:_____

C. How many people are in your immediate family?_____

D. What is your approximate gross income?_____

E. Do you have any physically handicapped persons in your family?

_____Yes

_____No

If you answered yes, please indicate the number:_____

F. Have you had any courses which prepared you to work with physically handicapped students?

_____Yes

_____No

G. Have you had any educational experience in working with physically handicapped students?

_____Yes

_____No

H. Major_____

I. Highest Degree Held_____

Thank you for your cooperation!
This study should help us improve
education for the handicapped!

The Research Staff in VED